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non

reading said access information from the information file stored in the first storage medium when the data processor accesses a migrated file,
opening the transferred file in the second storage medium based on the access information acquired by reading said information file, and
reading the stored data from the opened file in the second storage medium and transferring the read data in to a predetermined area on the memory of the data processor and storing the same thereat without transferring to or storing the read data to the first storage medium, wherein said memory is directly coupled to the central processing unit.

REMARKS

It is submitted that these claims, as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicant is entitled.

Claims 2-12 and 14-17 and amended claims 1 and 13 are in this application.

Claims 1-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lam (US Patent No. 5,564,037) in view of Kamiyama (US Patent No. 5,893,139).

Amended independent claim 1 recites in part as follows:

“reading means for reading the stored data from the opened file in the second storage medium and loading the read data in to a predetermined area on the memory of the data processor and storing the same thereat without transferring to or storing the read data to the first storage medium, wherein said memory is

directly coupled to the central processing unit.” (Underlining and bold added for emphasis.)

An example of the above feature is illustrated in Figure 1 of the present application. As shown in Fig. 1, a data processing apparatus 10 may include a first storage medium 13, a central processing unit (CPU) 11, and a memory 12 directly coupled to the CPU 11. In addition, Fig. 1 also shows a second storage medium 20. Fig. 1 also shows that data may be opened and read from the second storage medium 20 and transferred directly to the memory 12 via a signal line 50 without being transferred to first storage medium 13.

In explaining the above 103 rejection, the Examiner appears to rely on Lam to disclose the reading means of claim 1. As best understood, the Examiner appears to assert that file server 10 of Lam is the same as the first storage medium of claim 1, secondary storage 20 of Lam is the same as the second storage medium of claim 1, the plurality of workstations 40 of Lam is the same as CPU 11 of claim 1, and tertiary storage 30 of Lam is the same as the memory 12 of claim 1. As such, Fig. 1 of Lam appears to disclose that the tertiary storage 30 (memory) is not directly coupled to the plurality of workstations 40 (CPU).

Furthermore, Lam also discloses in col. 8, lines 26-31 that “after the data from the migrated file is read, the sparse file is opened in step S12 by the migration engine 11. In step S13 the contents of the original file retrieved from the HSM system 2 are loaded [(i.e., transferred)] into the sparse file, converting the sparse file back to the original file having its original physical location. Thus, after step S13, the original file is again resident on the file server 10 in it (sic) original (e.g., premigration) form.” Therefore, Lam appears to disclose that during a demigration process, the opened migrated file from the secondary storage device is loaded (i.e. transferred) on to the primary storage device. Accordingly, such demigration process does not load data to the tertiary storage (memory) without transferring the data to the

primary storage device. On the other hand, the reading means of claim 1 may read data from the second storage medium (such as medium 20) and load the data directly to the memory (such as memory 12) **without being transferred to the first storage medium** (such as medium 13).

(Underlining and bold added for emphasis.)

Therefore, for the reasons stated above, independent claim 1 is believed to be distinguishable from the applied combination of Lam and Kamiyama. Accordingly, withdrawal of the 103 rejection of independent claim 1 is respectfully requested.

For reasons similar to those described above with regard to independent claim 1, amended independent claim 13 is believed to be distinguishable from the applied combination of Lam and Kamiyama. Accordingly, withdrawal of the 103 rejection of independent claim 13 is respectfully requested.

Claims 2-12 and 14-17 depend from amended independent claims 1 and 13 respectively, and, due to such dependency, are also believed to be distinguishable from the applied combination of Lam and Kamiyama for at least the reasons previously described. Therefore, withdrawal of the 103 rejection of claims 2-12 and 14-17 is respectfully requested.

The Examiner has made of record, but not applied, several U.S. patents. The Applicant appreciates the Examiner's explicit finding that these references, whether considered alone or in combination with others, do not render the claims of the present application unpatentable.

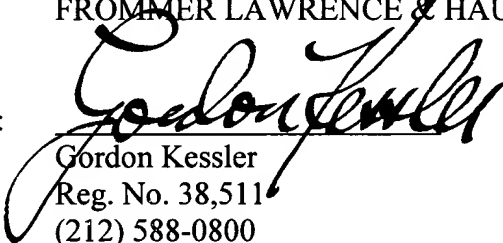
Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

It is to be appreciated that the foregoing comments concerning the disclosures in the cited prior art represent the present opinions of the Applicant's undersigned attorney and, in the event, that the Examiner disagrees with any such opinions, it is requested that the Examiner indicate where, in the reference or references, there is the basis for a contrary view.

In view of the foregoing remarks, it is believed that all of the claims in this application are patentable over the prior art, and early and favorable consideration thereof is solicited.

Respectfully submitted,
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Version with markings to show changes made

IN THE CLAIMS

Please amend claims 1 and 13 by rewriting the same to the following:

1. (Twice Amended) A data storage and retrieval apparatus having a data processor, including a memory, central processing unit and a first storage medium, which performs migration for transferring a file stored in the first storage medium to a second storage medium provided outside of the data processor and generates an information file including access information in the first storage medium, comprising:

an information acquisition means for reading said access information from the information file stored in the first storage medium when the data processor accesses a migrated file,

a file opening means for opening the transferred file in the second storage medium based on the access information acquired by the information acquisition means, and

a reading means for reading the stored data from the opened file in the second storage medium and loading the read data in to a predetermined area on the memory of the data processor and storing the same thereat without transferring to or storing the read data to the first storage medium, wherein said memory is directly coupled to the central processing unit.

13. (Twice Amended) A data storage and retrieval method wherein a data processor, including a memory, central processing unit and a first storage medium, performs migration for transferring a file stored in the first storage medium to a second storage medium provided outside of the data processor, and generates an information file including access information in the first storage medium, comprising the steps of:

reading said access information from the information file stored in the first storage medium when the data processor accesses a migrated file,
opening the transferred file in the second storage medium based on the access information acquired by reading said information file, and
reading the stored data from the opened file in the second storage medium and transferring the read data in to a predetermined area on the memory of the data processor and storing the same thereat without transferring to or storing the read data to the first storage medium, wherein said memory is directly coupled to the central processing unit.